Claims

1. Spiraling arrangement (1) for applying a spirally-shaped filament layer onto an elongated carrier (2), which can be advanced in the direction of the carrier longitudinal axis (X), the arrangement having a rotor (3) rotatable about the carrier longitudinal axis (X) and a plurality of filament bobbin carrier shafts (5) being arranged distributed on a circumscribed circle of the rotor (3) and each of the carrier shafts (5) being for accommodating the corresponding plurality of bobbin spools (7), characterized in that, filament brake elements (10) are distributed over the periphery at a first end face (6a) of the rotor (3) and are synchronously drivable with respect to each other; the filaments (8) being taken off the filament bobbin (7) and guided to the carrier (2) by filament guiding elements (9) via the filament brake elements (10) and an annular comb (12) which encloses the carrier (2).

2. Spiraling arrangement (1) of claim 1, characterized in that the filament brake elements (10) are configured as cylindrically-shaped rotatable drums having several filament take-up slots; each of the slots extending over the periphery of the drum and being spaced from each other in the direction of the longitudinal axis of the drum.

3. Spiraling arrangement (1) of claim 1 or 2, characterized in that each filament brake element (10) has a drive/brake unit (11).

4. Spiraling arrangement (1) of claim 1 or 2, characterized in

that several filament brake elements (10) are coupled to each other via gear assemblies, chains or belts and are driven or braked in common.

5. Spiraling arrangement (1) of claim 4, characterized in that a belt drive is influenced in each case by at least one drive/brake unit (11).

6. Spiraling arrangement (1) of claim 3 or 4, characterized in that the rotor (3) is assembled of separate circular segments and the filament brake elements (10) of each circular segment are coupled to each other.

7. Spiraling arrangement (1) of claim 6, characterized in that the belt drives of the circular segments are coupled to each other.

8. Spiraling arrangement (1) of one of the above claims, characterized by a central control unit for the filament brake elements (10) for uniformly adjusting the filament tensions of all filaments (8).

9. Spiraling arrangement (1) of one of the above claims, characterized in that the filament guide elements (9), which are provided for deflecting the filament (8) at an angle of greater than 30°, are configured as deflecting rollers.

10. Spiraling arrangement (1) of one of the above claims, characterized in that the filament bobbin carrier shafts (5) are releaseably supported at at least one end face (6a, 6b) of the

rotor (3).

11. Spiraling arrangement (1) of one of the above claims, characterized in that the annular comb (12) has a guide-through bore for the carrier (2) at the center of the annular comb (12) and has a plurality of slits for taking up corresponding ones of the filaments (8); the slits extending radially from the outer periphery; and, that an inner sleeve (13) is arranged in the annular comb (12) which closes the carrier (2); the inner edge of the inner sleeve (13) is radially beveled and borders on the carrier (2) at the intake end.

12. Spiraling arrangement (1) of one of the above claims, characterized in that the filaments (8) are pulled off tangentially from the filament bobbins (7).

13. Spiraling arrangement (1) of one of the above claims, characterized in that brake elements are arranged in bearings of the filament bobbins (7).